



ODISHA POWER TRANSMISSION CORPORATION LIMITED

(A Government of Odisha Undertaking)

OFFICE OF THE DEPUTY GENERAL MANAGER, ELECTRICAL

E.H.T. CONSTRUCTION DIVISION, JHARSUGUDA

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Justification for locating project in forest area.

Odisha Power Transmission Corporation Limited (OPTCL) is a Govt. of Odisha undertaking organisation. This proposal is formulated to supply power from Bonai to RTSS, Bimlagarhin Sundargarh district, Odisha over a distance of 19.94⁴ KM. This line is a 220 KV SC (2 conductor) line, which emanates from 220/ 33 KV grid sub-station at Bonai and will be connected to Railway Traction substation (RTSS) at Bimlagarh. During the walk-over survey of the route, three alternative routes were identified. After avoiding reserve forest, dense vegetation, human habitation, forest plantation and thick village forest, Route No. - 2 is found with involvement of least forest lands covering an area of **3.305 ha** comparing to other routes. Unlike roads, EHT Transmission line can't take frequent turn because of limitation of maximum 60° turn and other technical constraints. The project will supply electric power to the traction substation, which will result in plying locomotives through electric power instead of conventional diesel fuel. This will save huge quantity of mineral oils and will help in preserving the depleting oil sources. The main advantages in the electric traction system are: Ease in control, wide range of flexibility in speed & control, high power-to-weight ratio, less pollution, no use of non-renewable fuels, less cost in running and faster acceleration.

Further, electric locomotives use a unique system of 'regenerative braking', where the kinetic energy of the train is converted during braking to electrical energy and pushed back into the system. Besides, supply at EHT voltage will also ensure uninterrupted power supply to the railway station, which will prevent undesirable power supply outages and inconveniences to the passengers. Uninterrupted power supply will also help railway authorities to provide better amenities in the station such as lift and escalators, purified drinking water system etc.


**DGM, EHT (C) Divn.
Jharsuguda**